

REMARKS

Claims 1-5 and 7-10 are all the claims pending in the application.

The Examiner is respectfully requested to indicate approval of the drawings filed with the application on March 12, 2004.

The Examiner is respectfully requested to return the initialed PTO/SB/08 filed with the **Information Disclosure Statement on August 18, 2004.**

The Specification is objected to. Applicants amend the Specification to overcome this objection.

Claims 1-7 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schippl (6,186,181) in view of Reimann (903,316).

Claims 1, 2 and 4-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gronemeyer (2,613,166) in view of Schippl (6,186,181).

Analysis of Prior Art Rejections

Claim 1 is the only claim in independent form; therefore, the following discussion is initially directed to this independent claim.

Claim 1 is directed to a spacer for a long substrate in the interior of a long tube. Superinsulation material is arranged between the substrate and the tube.

The spacer comprises two first rings seated on the substrate, spaced apart at a longitudinal axial distance from one another. A tube section is supported on the rings. The length of the tube section corresponds to 1-2 times the outside diameter of the tube. A second ring is located on the tube section between the two first rings.

Schippel fails to teach or suggest tube sections, or that the length of a tube section should correspond to 1-2 times the outside diameter of the tube section. Reimann also fails to teach or suggest tube sections, or this dimensional relationship for a tube section. The Examiner asserts that the “use of a specific thickness [of] tube section or length of tube section is considered to be merely a choice of mechanical expedients where only routine experimentation would be required to arrive at optimum values.” (Office Action, page 3.)

However, there is no teaching or suggestion for providing a tube section in the first place. In both cited references, the so-called inner tube is not a tube section as in the present invention. Rather, the tube, such as the “intermediate tube section 4” of Reimann (Office Action, page 3) described by the Examiner, is merely an inner tube 4 which stretches along the length of the outer tube. There is simply no suggestion of tube sections. Consequently, there is no teaching or suggestion for manipulating the relationship between the length and diameter of a tube section, as such “optimum values” would not have been evident to one of ordinary skill in the art without the benefit of hindsight of Applicant’s disclosure.

In view of the foregoing, claim 1 is patentable over the combination of Schippel and Reimann.

Turning to Gronemeyer, this reference fails to teach or suggest any relationship between length and outer diameter of the insulating sheet 24, 27 (alleged tube sections). Moreover, Schippel does not even teach or suggest a tube section in the first place. Thus, there is no teaching or suggestion for manipulating the relationship between the length and diameter as there

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/798,330

is no recognition that the relationship between these values would provide any type of optimum value in the cited prior art. There is simply no motivation to arrive at the claimed invention.

In view of the foregoing, claim 1 is patentable.

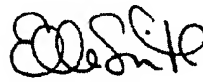
The remaining rejections are directed to the dependent claims. These claims are patentable for at least the same reasons as claim 1, by virtue of their dependency therefrom.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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